Society Reports.

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The President, Dr. Frederick Peterson, in the chair.

A CASE OF DISSEMINATED SCLEROSIS.

Dr. L. Stieglitz presented a boy, seventeen years of age, one of a family of nine children. None of the others showed a similar condition. When the patient was six years of age, he was noticed to walk peculiarly, and a year later he began to have attacks of intense headache and vomiting. About three years ago the headaches became less severe, but recently they have had their former intensity. He oftens has trouble in urinating. Examination shows a fairly well developed boy, presenting the typical gait of cerebellar ataxia. The muscular power is generally diminished, particularly in the right arm. There is a distinct hemiplegia, nystagmus in both eyes, and divergent squint. The fundi appear entirely normal. The speech is thick, nasal and drawling.

The speaker said, regarding the diagnosis, that if the affection had been more recent, he would have been led to think of brain tumor. Syphilis of the brain could be excluded, not only on account of the personal and family history, but because of the negative results under antisyphilitic treatment. Friedreich's ataxia could be excluded because of the hemiplegia and increased knee-jerks. He looked upon the case as one of disseminated sclerosis. Plaques in the cerebellum would account for the cerebellar ataxia, and plaques in the left hemisphere would account for the right hemiplegia.

Dr. Graeme M. Hammond was not quite ready to accept the diagnosis of disseminated sclerosis. There were changes in the mentality, and a younger sister exhibited evidence of beginning degeneration of the brain He was inclined to think that there was atrophy of all parts of the cerebrum.

Dr. Steiglitz did not think that the deficient mentality negatived the view that the case was one of disseminated sclerosis. He had not seen the other children.

INSTRUMENT FOR MEASURING THE PATELLAR REFLEX.

Dr. W. H. Haynes exhibited an instrument which he had devised for measuring the reflexes, and demonstrated its action. The apparatus consists of an oblong iron stand on castors. To one end of this is attached an upright iron rod carrying a large metallic semicircle with convenient graduations. At the center of the upright rod an aluminum arm is hinged, and the other end of this arm swings along the brass arc and can be fastened by a screw-clamp. The aluminum arm is placed against the tip of the patient's foot, and the reflex tested. The arm is kicked upward by the foot to a greater or less extent, and the spring clamp is left clinging to the point on the arc to which it was kicked.

Dr. L. Muskens said that he had been working with another instrument intended for the same purpose. His work in this line had taught him that it was not so much the liveliness of the knee-jerk as its quality which was of importance, both in research and clinical work. The readings in such an apparatus were also greatly vitiated by the adjustment of the instrument and the angle at which the foot strikes the arm.

Dr. Charles K. Mills, of Philadelphia, read a paper with the title: "Some points of special interest in the study of the deep reflexes of the lower extremities." (See page 131.)

Dr. Charles L. Dana said that he did not recall having met with ankle-clonus in connection with absence of the knee-jerk. He was absolutely in accord with Dr. Mills and Sir Wm. Gowers as to the connection of ankle-clonus with hysteria. He did not believe that in true hysterical paralyses there is any ankle-clonus; if it does occur, it is due to some toxemic or organic disorder. At one time he had studied a series of 20 cases of hysterical paralyses, and had been impressed by the fact that the knee-jerks were diminished and the tonus somewhat lessened in this form of paralysis. But there is a form of paralysis which might be considered, in which there is an ankle-clonus. He had recently seen a lady of forty years who had had for a number of years certain neurasthenic symptoms, and who finally suffered intense pain in the back, and developed partial paraplegia. There was at this time a genuine and persistent ankle-clonus. After about one month the patient recovered completely. He had since seen a similar case in which were spinal irritation, neurasthenic symptoms and functional paraplegia. These cases, he thought, were not true examples of the hysterical state, but of profound nerve exhaustion. These exceptions do not vitiate the general statement, that hysterical palsies are not accompanied by ankle-clonus.

Dr. B. Sachs said that he had had under observation, some years ago, a patient with absolute loss of knee-jerks, but presence of ankle-clonus, in whom the preservation of ankle-clonus was in all probability due to the fact that the lesion was limited to the upper lumbar segment. He had also witnessed the same peculiar association of symptoms in a case of Pott's disease in which the lower thoracic vertebræ were involved. He believed that in this case, too, the lower lumbar and sacral segments had entirely escaped. He was disposed to agree entirely with the view taken by Gowers and Mills regarding the relation of ankle-clonus to hysteria. He had noted ankle-clonus in a case of distinct hysterical paraplegia in a child, and had observed the same thing once in a young man suffering from neurasthenia. It is a very curious fact, showing the relative value of the deep reflexes, that while the knee-jerks are so commonly exaggerated in neurasthenia, ankle-clonus is almost invariably wanting.

As to the question of the dependence of the absence of knee-jerk upon the degeneration of the muscle fiber, it should be noted that this was probably the explanation of the absence of the knee-jerk in muscular dystrophies.

Dr. G. M. Hammond said that he agreed with the last speaker in regard to the absence of ankle-clonus in hysteria, as a rule, and yet he had seen at least three or four cases of hysteria in which ankle-clonus had certainly been present. When such conditions exist it is exceedingly difficult to make the differential diagnosis between hysteria and organic disease. For some years he had been making observations in cases of this kind concerning the effect of etherization. The ankle-clonus was found to be maintained, even under full etherization, when there was an underlying organic disease, although this was not the case in hysterical subjects.

Dr. W. M. Leszynsky said that during the past summer he had had under observation a man with certain symptoms of transverse myelitis. Examination showed the absence of both knee-jerks and presence of ankle-clonus on both sides. In addition, there was a clonus affecting the gluteus maximus muscle on one side. He had seen ankle-clonus at least three times in patients who had been under observation for a number of years, and who had not developed any organic disease. He asked Dr. Mills if he had ever noticed ankle-clonus produced by tapping the Achilles-tendon while the foot is flexed in the usual manner. It was only in this way that he had been able to demonstrate it in two or three instances.

Dr. Joseph Collins asked Dr. Mills whether he believed that the actively contractile substance of the muscle in his first reported case was in such a diseased state that it was thrown into clonus by the tap on the tendon. Regarding the occurrence of clonus in hysterical conditions he said that he had seen cases of traumatic hysteria, in which there was a true ankle-clonus, and in which recovery had taken place. He could not differentiate such cases from true hysteria.

Dr. F. Peterson said regarding the presence of ankle-clonus in hysteria, that he had never seen a genuine clonus in a case of pure hysteria.

Dr. Mills closed the discussion. In answer to Dr. Collins he said that the explanation in the case he had reported was not very clear, but he believed that the loss of knee-jerk was due to a combination of muscle and neural disease, both of which were demonstrated by the microscope. Probably the nerve to the tendo Achillis had been in a state of neuritis earlier, and had so caused an excitation of the ankle phenomenon. In the examination of some of the cases of tabes for tendo Achillis jerk, slight clonus was found in two. He had elicited tendo Achillis clonus by tapping on the tendon when ankle-clonus could not be elicited by simply placing the foot in dorsal flexion. The patient's knees should be placed close to the chair on which he leans, and the tendon should be percussed near the heel. As to the question of ankle-clonus in hysteria he would again emphasize the necessity for more explicit statements regarding it. In every case one should discriminate carefully between spurious, abortive clonus and the clonus of the uniform and persistent type. He took the position that in a very limited number, probably less than five per cent., the abortive or spurious type of ankle-clonus would be found. In one definite and limited class of cases usually regarded as hysterical, and sometimes with other stigmata of hysteria, such as the sensory changes, one meets with what appears to be ankle-clonus. This is the class of cases characterized by hypertonicity. True ankle-clonus with hemiparesis or hemiplegia he considered almost pathognomonic of organic disease.

A CONTRIBUTION TO THE STUDY OF CEREBRO-SPINAL MENINGITIS.

Dr. Lewis A. Conner read a paper with this title. The paper was based upon 60 such cases, occurring at the Hudson Street Hospital and New York Hospital. Every effort had been made to exclude those in which the meningitis was secondary to other processes. Of the 60, 21 occurred in 1893, the year in which the disease was especially prevalent in various parts of the country. Ten occurred in each of the last two years. One-half of all the cases occurred in the spring months, March, April and May. Seventy per cent. occurred in males; 32 per cent. in those under the age of fifteen years, 43 in those between fifteen and thirty, and 25 in those over thirty years. The youngest case was that of a child of two months, and the oldest a woman of sixty-five years. In only one was there a distinct history of exposure to cold immediately preceding the attack. No two of the cases came from the same family, although two negroes occupying the same room were attacked within a few hours of each other, and both died in a short time.

Post-mortem examinations were made in 18 of the 41 fatal cases. In the very acute cases there was marked congestion of the meningeal vessels. The exudate was often so slight as to be scarcely perceptible, except in cases that had lasted two weeks or more. The lateral ventricles were often distended with purulent fluid. The greatest involvement of the cord was in the thoracic and lumbar portions, and always on the posterior surface. Microscopical examination showed constant involvement of the subjacent brain tissue. The common involvement of the cranial nerves was also noted.

Councilman, and his associates, are convinced that the specific cause of epidemic cerebro-spinal meningitis is the diplococcus intracellularis. In the 35 cases examined by them the organism was found in all but four. Bacteriological examination was made in ten of the cases reported in the present paper. In three autopsies in which the culture results were negative only ordinary culture media were used. The diplococcus intracellularis was found in only four of the cases, and the pneumococcus in about the same proportion.

All of the usual types of cases described were represented in this series. All of the fulminant cases were marked by early delirium and coma. Twenty-six ran their course in two weeks, and all ended fatally. There were two of the intermittent type. Thirteen lasted more than one month, and of these, 11 recovered, the longest being for three and a half months. The onset was sudden in 39 cases. The temperature was markedly irregular, but there were several distinct types. In a number the temperature was normal or subnormal throughout the disease, or up to a short time before death. In a second type the temperature was moderate most of the time. In others, the temperature rose gradually, and then fell whether or not recovery took place. These cases resembled somewhat typhoid fever, but not infrequently the highest temperature was in the morning. In the fulminant cases the temperature was sometimes nearly normal for the first few hours. The pulse also varied greatly, and was independent of the variations in temperature. Retardation of the pulse was not common or marked except in two cases. When the symptoms were active, an almost constant symptom was a marked increase in the respiration-rate. Vomiting was present at some time in over one half; in 25 it appeared at the onset, and in 15 only at that time. In 15 it remained a prominent feature throughout the disease. In no case was the vomiting "projectile." There was more or less pain in all cases, and it was usually in the form of an intense occipital headache, but pain in the back, limbs and chest was not infrequent, and sometimes was especially marked on one side. The reflexes presented no constant feature. Greater or less rigidity of the muscles of the head, neck and back was present in almost every case. Rigidity of all the extremities was also common. There was no uniformity about the appearance of the pupils. In one case which recovered consciousness was preserved throughout the disease. In a large proportion of the cases delirium and stupor alternated. Some of them were marked by an unusual form of delirium, simulating hysteria. Skin manifestations were observed in 25 per cent., but the hemorrhagic eruption was seen in only three of the cases. A distinct leucocytosis was present in most of the cases in which the blood was examined. The spleen was enlarged in 23 per cent. of the cases. In none of the patients who recovered was vision disturbed subsequently. Two patients had bilateral deafness, and one of these recovered completely. In several there were involvements of the joints resembling those seen in rheumatism. In seven pneumonia occurred, and in all it developed after the meningitis. Albuminuria was generally an accompaniment of the disease.

Dr. Joseph Collins said that he thought the paper went to prove, rather than disprove, the theory that attacks of cerebro-spinal meningitis are entirely distinct in their causation and pathogeny from those which develop sporadically. In very few of the latter cases was the diplococcus intracellularis found, whereas it was almost constantly present in the epidemic cases studied by Councilman. The cases reported in the paper had been clearly shown to be of the non-epidemic variety. He would, therefore, still maintain the opinion published elsewhere, that the epidemic form is entirely different in its causation and pathogeny from the sporadic, the former being associated only with an individual organism. It was true, however, that the latter was commonly associated with the diplococcus of pneumonia.

Dr. Sachs thought the statistics just presented in the paper might lead to some confusion. He did not think the diagnosis of epidemic cerebro-spinal meningitis could be made positively at the present time without post-mortem examination. The prognosis in this series was evidently rather better than that usually observed in epidemic cerebro-spinal meningitis. Recently he had seen a girl of eighteen who within a few hours was comatose, and died within twenty-four hours. The autopsy revealed the diplococcus intracellularis. Such cases should hardly be placed in the same category with the epidemic form.

Dr. Conner said that he had refrained from using the term "epidemic meningitis," because he had been unable to convince himself that epidemic and sporadic meningitis were different diseases. One or two of the cases in which the pneumococcus was found occurred in 1893, a year in which this disease was epidemic. A case which developed last summer after exposure to the sun, was observed for two months, and was examined after death, and the diplococcus intracellularis was discovered. In this case, as well as in the one referred to by Dr. Sachs, the disease was evidently sporadic, and yet the diplococcus intracellularis was present. He could not therefore accept the statements made by Dr. Collins. It seemed to be impossible to distinguish clinically between the two forms. The mortality in his cases was 65 per cent., exactly the rate found by Councilman in the epidemic at Boston.

32. Ueber einen Fall von juveniler Paralyse auf Hereditaer luetischer Basis mit specifischen Gefaessveraenderungen.

A Case of early Paresis due to Congenital Syphilis with specific changes in the Blood Vessels. C. v. Rad. Archiv für Pschychiatrie und Nervenkrankheiten, 30, 1898, p. 82.

A young man who had previous been healthy, but whose father was syphilitic, at the age of 15 developed attacks of convulsions combined with periods of unconsciousness, an increasing mental weakness having begun to manifest itself for some time before. In addition to these epileptiform attacks marked decline of the visual and mental powers set in, and at the age of 21 had reduced the patient to a condition of absolute idiocy. Other objective symptoms were also observed, such as pupillary non-reaction, spastic paraplegia of the legs and disorders of speech. After 7 weeks in the hospital the patient died from an attack of pneumonia.

The autopsy fully explained the clinical picture. The thickening of the pia, degeneration of the large pyramidal cells and disappearance of tangential fibers was clearly indicative of paresis, while the capillaries of the cortex were thickened and presented localized dilatations and in places were surrounded by bloody extravasations of various ages. In the cord there was found a moderate degree of degeneration of the pyramidal tracts with the balance of the white matter normal, as not infrequently is the case in paralysis. The basal vessels were in a condition of syphilitic endarteritis, the intima being everywhere thickened and in the smaller vessels a peri and mesarteritis were found. The author emphasizes the specifically syphilitic changes of the basal vessels as they plainly demonstrate the surmised, but not yet definitely proven, connection between congenital syphilis and paresis in the young.